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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Sharad Sundaresan

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EXAMINER

BILGRAMI, ASGHAR H

ART UNIT

PAPER NUMBER

2143

MAIL DATE

DELIVERY MODE

04/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/924,731	Applicant(s) SUNDARESAN ET AL.	
	Examiner ASGHAR BILGRAMI	Art Unit 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/19/2007 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 19, 22, 23, 25-32, 34, 35 & 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruck et al (U.S. 6,801,949 B1) and Hart (U.S. 6,154,765).

4. As per claims 19, 32 & 35 Bruck disclosed a method for providing seamless fail-over of communication between a client computer and a cluster of servers, wherein the cluster of servers includes a first server and a second server and wherein the client computer includes a client application, and a network access module by which the client application communicates (col.2, lines 38-65), the method comprising: detecting a

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failure of a first connection with the first server; wherein the first server maps to a server name; sending a request to the cluster of servers, wherein the request includes the server name (col.27, lines 23-45); receiving a response from the second server, wherein the response includes a network address of the second server; and establishing a second connection with the second server by way of the network address of the second server (col.27, lines 46-67 & col.8, lines 1-24). Although did disclose that the server cluster provides a Highly available Internet Link to achieve transparent web server fail-over but Bruck did not explicitly disclose wherein the first and second connection are over a Virtual Interface Architecture (VIA) protocol and wherein the detecting, the sending, the receiving, and the establishing occur at the network access module, transparent to the client application. In the same filed of endeavor Hart disclosed wherein the first and second connection are over a Virtual Interface Architecture (VIA) protocol (col.8, lines 31-33) and wherein the detecting, the sending, the receiving, and the establishing occur at the network access module, transparent to the client application (col.2, lines 21-25).

It would have been obvious to one in the ordinary skill in the art at the time the invention was made to have incorporated the implantation Virtual interface Architecture protocol as disclosed by Hart into the method of seamless fail-over of communication between a client and a cluster of servers in order to make the system more scalable resulting in a more reliable network communication between network devices.

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5. As per claim 22 Bruck-Hart disclosed the method of claim 21, further comprising verifying that the second server maps to the server name (Burk, col.35, lines 46-67 & col.36, lines 7-17).

6. As per claim 23 Bruck-Hart disclosed the method of claim 22, wherein verifying that the second server maps to the server name comprises verifying that the second server is responsive to the server name (Burk, col.35, lines 46-67 & col.36, lines 7-17).

7.

8. As per claim 25 Bruck-Hart disclosed the method of claim 19, wherein the request is sent by User Datagram Protocol (UDP) (Burk, col.14, lines 55-56 & col.15, lines 1-10)

9. As per claim 26 Bruck-Hart disclosed the method of claim 19, wherein the first server and second server store and retrieve relational data by way of Structured Query Language (SQL) commands (col.7, lines 30-37)

10. As per claim 27 Bruck-Hart disclosed the method of claim 19, wherein the first server is designated as active and the second server is designated as passive (Burk, col.2, lines 6-15)

11. As per claim 28 Bruck-Hart disclosed the method of claim 27, wherein the second server periodically sends a keep- alive message to the first server (col.3, lines 41-59).

12. As per claim 29 Bruck-Hart disclosed the method of claim 28, wherein the second server assumes designation as active when the first server fails to response to the keep-alive message (col.3, lines 10-59).

13. As per claim 30 Bruck-Hart disclosed the method of claim 19, wherein the response contains a plurality of port numbers, wherein each port number corresponded to a different communications protocol (col.7, lines 30-37).

14. As per claim 31, 34 & 37 Bruck-Hart disclosed the method of claim 19, wherein the first connection and the second connection comprise VIA formatted packets (Hart, col.8, lines 30-33).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 20, 21, 24, 33 & 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruck et al (U.S. 6,801,949 B1), Hart (U.S. 6,154,765) and Brendel et al (U.S. 5,774,660).

17. As per claims 20, 33 & 36 Bruck-Hart disclosed the method of claim 19. However Bruck-Hart did not explicitly disclose further comprising caching the response from the second server in a cache connected to the network access module. In the same filed of endeavor Brendel disclosed further comprising caching the response from the second server in a cache connected to the network access module (col.4, lines 5-16).

It would have been obvious to one in the ordinary skill in the art at the time the invention was made to have incorporated caching the response from the second server on the network access module as disclosed by Brendel in the method of seamless failover of communication between a client and cluster of servers utilizing a Virtual Interface Architecture (VIA) as disclosed by Bruck and Hart in order to make the client and server connection more efficient resulting in a network system that is robust and reliable.

18. As per claim 21 Bruck-Hart disclosed the method of claim 20. However Bruck-Hart did not explicitly disclose wherein the establishing the second connection comprises retrieving the network address of the second server from the cache. In the

same field of endeavor Brendel disclosed the establishing the second connection comprises retrieving the network address of the second server from the cache (col.2, lines 41-52).

It would have been obvious to one in the ordinary skill in the art at the time the invention was made to have incorporated the establishment of the second connection to the second server by utilization of the second server network address from the cache as disclosed by Brendel in the method of seamless failover of communication between a client and cluster of servers utilizing a Virtual Interface Architecture (VIA) as disclosed by Bruck and Hart in order to make the client and server connection more efficient resulting in a network system that is robust and reliable.

19. As per claim 24 Bruck-Hart disclosed the method of claim 20. However Bruck-Hart did not explicitly disclose further comprises purging the cache prior to caching the response from the second server. In the same field of endeavor Brendel disclosed further comprises purging the cache prior to caching the response from the second server (col.3, lines 40-49).

It would have been obvious to one in the ordinary skill in the art at the time the invention was made to have incorporated purging the cache prior to caching the response from the second server as disclosed by Brendel in the method of seamless failover of communication between a client and cluster of servers utilizing a Virtual Interface Architecture (VIA) as disclosed by Bruck and Hart in order to make the client

and server connection more efficient resulting in a network system that is robust and reliable.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ASGHAR BILGRAMI whose telephone number is (571)272-3907. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AB

/Nathan J. Flynn/
Supervisory Patent Examiner, Art Unit 2154